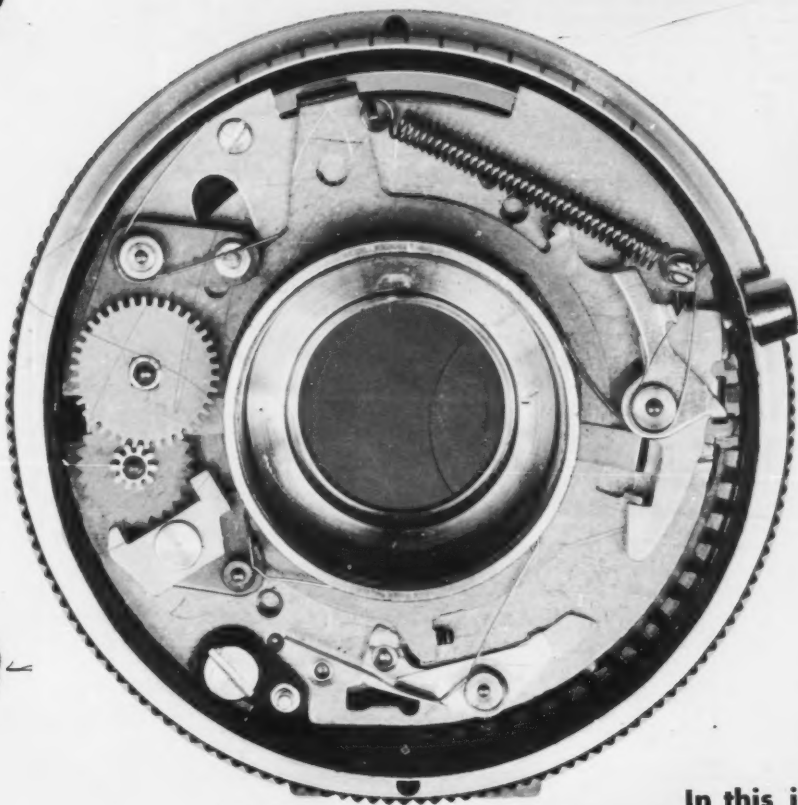


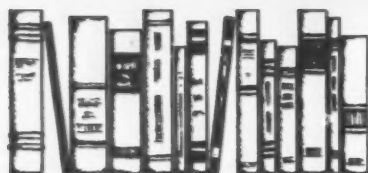
Volume 5  
Number 6  
Nov-Dec 1959

*the*  
**CAMERA  
CRAFTSMAN**



**In this issue:**

SCHOLARSHIP PROGRAM SUGGESTED  
SERVISHOPS FRANCHISES ANNOUNCED



## BOOK SHOP

Here are useful additions to your library of technical material. This department will regularly offer suggestions for new books you may wish to acquire. Any reference books, whether or not here listed, photographic or otherwise, will be located for you and may be purchased through the NCRS Supply Department.

FLASH! ULTRA HIGH SPEED PHOTOGRAPHY By H. Edgerton and J. Killian	\$6.50
PHOTOGRAPHIC OPTICS Arthur Cox	5.75
PHOTOGRAPHIC OPTICS Allen R. Greenleaf	6.00
PRINCIPLES OF OPTICS Hardy and Perrin	9.50
YOUR CAMERA LENS AND SHUTTER G. L. Wakefield	4.95
CAMERA REPAIRMAN'S HANDBOOK	5.95
KODAK REFERENCE HANDBOOKS	ea 4.00
MINIATURE AND PRECISION CAMERAS S. J. Lipinsky	7.95
DICTIONARY OF PHOTOGRAPHY A. L. M. Sowerby	10.00
PHOTO DICTIONARY Morgan & Morgan	3.50
SUCCESSFUL SETTING OF CAMERAS AND ACCESSORIES Dr. Langer	2.95
KODAK GRAPHIC ARTS HANDBOOK	6.50
PHOTO-LAB INDEX Henry M. Lester and John S. Carroll	19.95
FOCAL ENCYCLOPEDIA OF PHOTOGRAPHY	20.00
THEORY OF THE PHOTOGRAPHIC PROCESS C. E. K. Mees	21.50
SOUND BASICS By Alexander Efron	1.25
LIGHT BASICS By Alexander Efron	1.50
BASIC ELECTRONICS By Van Valkenburgh, Nooger, Neville, Inc. 5 Vols. \$2.25 each	set 10.00
Hard bound edition	11.50
HOW TO INSTALL AND SERVICE INTERCOMMUNICATIONS SYSTEMS By Jack Darr	3.00
HOW TO SERVICE TAFE RECORDERS By C. A. Tutthill	2.90

# the CAMERA CRAFTSMAN

VOLUME 5  
NUMBER 6

NOV-DEC 1959

The Periodical of Photo  
Technology for Camera  
Repairmen

COPYRIGHT 1959, NATIONAL CAMERA REPAIR SCHOOL, LITHO IN USA

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### THIS MONTH'S COVER

KODAK SYNCHRO 250 SHUTTER

### STAFF

Clair H. Schmitt	Editor
Dorothy Hauptman	Assistant Editor
Margaret Snyder	Art Director
George Norberg	Assistant Art Director
Frank H. Curtis	Advertising Manager
Richard Crabb	Production Manager

## A Point to Ponder

By SAMUEL L. LOVE



The job of being a camera repairman is an exciting one, isn't it? There are always new ideas to conquer, new goals to reach. It's easy to get enthusiastic about this work. If you could not get enthusiastic about your work, it would be time to become alarmed -- something would be wrong. In camera repair, you can compete with yourself; set your teeth and dive into the job of breaking your own record. No one keeps up his enthusiasm automatically. Enthusiasm must be nourished with new actions, new goals, new efforts. You must feed desire in order to generate enthusiasm.

That's why you'll find competition so valuable.

Jacob Kindelberger said, "Don't knock your competitors. By boosting others you will boost yourself. A little competition is a good thing and severe competition is a blessing. Thank God for competition."

Camera repair today can be compared to space technology not too many years ago. Few knew, in 1950, that competition in rocket science existed and hardly anyone cared. What a difference competition has made in the amount of effort expended in that new technical field. Quite some time ago, Knute Rockne observed, "The trouble with American life today, in business as well as in sports, is that too many people are afraid of competition. The result is that in some circles people have come to sneer at success if it cost hard work and training and sacrifice."

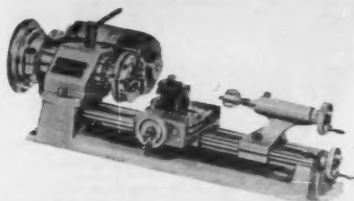
You will find that your competitors can stimulate your thinking and enthusiasm so that both of you will benefit. I doubt that anyone would have run a four-minute mile without having records against which to compete or runners against whom to race.

Mr. Hoke, the proprietor of a cigar store, was worried. His competitor was attracting crowds to his window by employing a vivacious dark-haired girl to sit in it and roll cigars, meanwhile "giving the eye" to the boys outside. Mr. Hoke hit upon an idea. Next morning a blonde was rolling cigars in his window -- but with her back to the street. A crowd quickly gathered inside the store.

Yes, competitive thinking is always worthwhile.

# UNIMAT

Unimat is a precision tool designed for technicians and engineers. It's readymade for Camera Craftsmen. No bigger than a typewriter, Unimat is a combination of 10 tools in 1, operating on just one base. Widely acclaimed as the finest tool ever developed for machining small parts made of metal, wood or plastic, Unimat is a rugged, portable machine that will provide a lifetime of satisfaction.



Basic unit consists of the precision lathe and all components necessary to set up drill press, milling machine, tool and surface grinding machine, hand drill, grinding and polishing machine. Also includes motor, upright steel drill press post, universal 3 jaw (reversible) self centering Cushman type lathe chuck, 3 jaw Jacobs type 1/4" capacity drill chuck, pivoting tool post, 2' dead centers. Face plate, lathe dog, grindstone arbor, Allen wrench, easy to follow instruction manual. Unimat basic unit comes handsomely packaged in sturdy wood storage chest. Complete basic unit, priced \$129.50

Items 1 through 5 are included in the basic unit. Items 6 through 9 are accessories. Write for illustrated literature and price list.

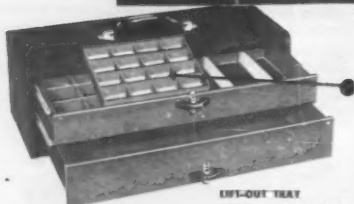


Attachments and accessories that turn Unimat into a complete machine shop: 1. Lathe 2. Drill Press 3. Tool and Surface Grinding Machine 4. Milling Machine 5. Polishing and Grinding Machine 6. Jig Saw 7. Threader 8. Circular Saw 9. Indexer and Divider.

## New TOOL CHESTS

**\$15.50**

**LOCK**  
Nickel plated  
snap type locks



**DRAWER SLIDE**  
Strong compound drawer slide  
with positive stop and patented  
spring release.

**ENT-OUT TRAY**  
Will fit at either end of  
top drawer. To compartments,  
each 1-12/16 x 1-12/16 x 7/8,  
provide filling space for small  
items.



Combining all of the convenience of a tool or die makers chest plus ease in carrying, number 2020 presents a new concept in hand carried tool boxes. The drawer arrangement permits use in restricted area where space does not allow the opening of more conventional type boxes. Especially useful for the service mechanic. Suitable for the home workshop. Finished in dark brown baked enamel with contrasting tan on drawers.

STYLE NO.	DIMENSIONS		
	L.	W.	H.
2020	20	8 1/4	6 1/4
Top Drawer	18 1/2	8	1-15/16
Lower Drawer	18 1/2	8	2-13/16

**NET WEIGHT**

15 lbs.

**SHIPPING WEIGHT**

ONE TO CARTON

17 lbs.

Top drawer has 12 permanent compartments  
2 1/4 x 2 x 7/8 plus 2 removable partitions.

**A ServiShops PRODUCT**

### NCRS TO EXHIBIT AT MPDFA CONVENTION

The Master Photo Dealers' and Finishers' Association Convention to be held March 21 thru 25, 1960, in St. Louis, Missouri, promises to be spectacular.

Over 150 leading manufacturers, importers and distributors will be taking part in this 36th Annual affair.

National Camera Repair School was in the large group to which were assigned 94 percent of the Exhibition space in the Kiel Auditorium, at St. Louis.

Now is the time to begin planning to visit St. Louis during that week in March. "SEE YOU IN ST. LOUIS"

### SERVISHOPS FRANCHISES ANNOUNCED

Franchises to operate National Camera ServiShops were recently granted to:

Mr. Harold W. Adams

ADAMS NATIONAL CAMERA SERVISHOPS

33 Pigeon Hill Street, Rockport, Massachusetts

Mr. Henry Bruins

HENRY BRUINS NATIONAL CAMERA SERVISHOPS

Brandon, Wisconsin

Mr. Vyron E. Hodges

VYRON HODGES NATIONAL CAMERA SERVISHOPS

1129 West Powell, Gresham, Oregon

Mr. Douglas F. Jackson

SOUTHERN UTAH NATIONAL CAMERA SERVISHOPS

41 North 800 West, Cedar City, Utah

Mr. Thomas D. Sox

NATIONAL CAMERA SERVISHOPS

602 Logan Street, Steubenville, Ohio

Mr. John P. Fortune

NATIONAL CAMERA SERVISHOPS (TRINIDAD)

11 Tragarate Road, Port of Spain, Trinidad, WI

### PROGRESS NEEDS RELIABILITY

The U.S. Aircraft Industry has a proud record for building reliability into its aircraft, but its toughest chore today is building reliability into its rockets and guided missiles because of their great complexity.

The average guided missile has 37,000 parts (and many of these are made of several pieces). If each of these items can be made so reliable that it would only fail once in 100,000 times, the mathematical chances are that one missile in three would misfire.

The goal the industry is striving to reach is for each item to be so reliable that it would not fail in 300,000 times. That's reliability -- in a missile or a manned aircraft.

From Miniaturesque  
Miniature Precision Bearings



## Reports FROM THE CRAFTSMEN

It might interest you to know that I was put in charge of our Camera Repair Section for six months solely on the merits of this course. It worked out fine. I got a lot of experience (on) a multitude of photographic equipment. I am back on my old job now, supervising the black-and-white lab and am most grateful for the time spent in the Repair Section.

William F. Witte  
APO, New York

I have been busy with a full-time job in this field for the last eight months. I like it very well. I am employed by Calandra Camera Co., Inc., in Omaha. Mr. Calandra recently promoted me to Manager of the Company's Repair Department.

Kenneth W. Walker  
Omaha, Nebraska

My activity in repairs is expanding so rapidly, I find it hard to keep up. I shall always be grateful to NCRS for opening the way to such an interesting and profitable occupation.

Robert G. Johnson  
Indianapolis, Indiana

I have so much repair work now that I don't get free time, even on Sundays. It's when I have to get a job done in a hurry that I really appreciate how much good I got from my lessons.

Jack Wilson  
Newcomerstown, Ohio

I am at present enjoying a very good business on a wholesale basis. I have three good accounts at the present time (names here). They are adequate and give me as much work as I have time to do. I also pick up work everywhere I turn, on the street and at the plant where I work. Consequently I'm not in a position to advertise, since I would not be able to do the work. In fact, I'm having so much repair work I can hardly find time to do my lessons with you.

C. W. Herrington  
Laurel, Mississippi

Our activity in repairs is increasing every week and will be a good going business by the end of the year. The course is excellent and will give anyone a real knowledge of repair work.

E. H. Bessey  
Delhi, California



### Tap-A-Line

**IN YOUR WORKSHOP:** Tap-A-Line permits you to plug in soldering irons, test lamps, flex shaft, other equipment. Has them all ready and available for immediate use.

**IN YOUR STUDIO:** Tap-A-Line is convenient for portable lights, flood lights, spot lights.

**On Your Test Bench:** Tap-A-Line will permit you to plug in all types of flash cords and have them at your finger tips.

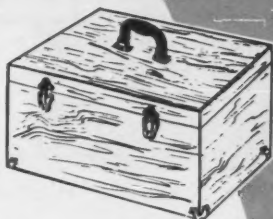


Model TL 1 foot

**\$2.00**

Protect your customers' camera from heat and shock with this sturdy

### Camera Carrying Case



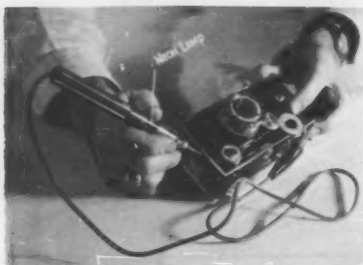
Made of rugged 3/8" plywood.  
Heavy luggage-type handle.  
Corners protected with metal.  
Lined throughout with sponge rubber.  
Has 2 turnbuckle catches.  
Inside dimensions - 18-3/4" long,  
10-1/2" wide, 8-3/4" deep.  
Finished in beautiful clear lacquer.

F. O. B. Englewood, Colorado

**WHILE THEY LAST \$8.40**

## CIRCUITRACER

*A small dependable  
rugged tester*



An easy to use, inexpensive electric circuit tester especially adaptable for camera repair work. It is capable of locating and identifying dead or live circuits of any voltage, fast.

- Checks electric photo-flash circuits
- Analyzes breaks and high resistance joints
- Tests flash wiring for breaks or bad connections

Put this handy unit into your carryon case or pocket for quick tests anywhere. Tested and approved for camera repair by "National ServiShops"

**\$4.50**

**A ServiShops PRODUCT**

## Our Students Speak



I believe this may be the last lesson and I want to say that I have thoroughly enjoyed the course. It is excellent and with the background I already have I think I wouldn't be afraid to try just about anything. My only wish is that I could have taken it about twenty years ago.

It is a wonderful thing for youngsters and I would recommend it highly.

R. V. Turner  
Ft. Worth, Texas

Congratulations on the article in the last Camera Craftsman concerning the Compur shutter. Very interesting -- this is the type of thing I'd like to see more of -- although I enjoy the entire publication.

The Analyzer seems to do everything I've tried so far well and easily. It's quite easy to calibrate -- I'm sure it's accurate within 5% or less. I like the idea of flash and shutter speed overlay charts very well.

Chris Bosch  
New Orleans, Louisiana

This letter affords me the opportunity to thank you personally for your continued interest in my work and your very helpful comments on my lessons. Thanks again, I'll be back with a lesson soon.

John J. Kaser  
Lemont, Illinois

I have taken other courses through the mails in the past and I must say that they could learn a lot through NCRS. To date I think it's 100% plus.

Frank Little  
New Brunswick, Can.

I think this camera repair course is a honey. I would recommend it to anyone even if they did not intend to go into camera repair.

Noel J. Wright  
Sacramento, Calif.





## study shots

HERE IS WHERE NCRS STUDENTS LEARN

These are pictures of students in the shops they have set up for their training in camera repair.



William McHenry  
Bethesda, Maryland



Fred N. Young  
Bladensburg, Maryland



Harold Taylor  
Morton, Illinois



Edgar Sherrick  
Fostoria, Ohio



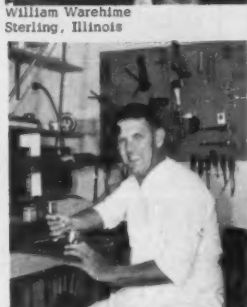
William Warehime  
Sterling, Illinois



Leonard Jaskulka  
Detroit, Michigan



George Allen  
Hayward, Calif.



John F. Newton  
Sacramento, Calif.



Arthur Brown  
Memphis, Tenn.

### NEWS

It is a pleasure to report another meeting of repairmen at the home of Edwin Richards in Detroit. According to John Joyce, "... the sharing of information such as our group has done, has put a new and better light on this work than ever before ... those at the meeting learned many things about the operation of still camera ... and motion picture shutters. We really gave the Analyzer a good workout."



In the photo by John Joyce, from left to right, Paul R. Geshe, Joe Bronson and Ed Richards are shown.

Anyone in the Detroit area who is interested in attending these meetings should contact Mr. John Joyce at 3313 Hunter, Royal Oak, Michigan

If you're not yet a member of SPT, now is the time to send in your application. If you do not have an application on hand, write to the Society of Photo - Technologists, Englewood, Colorado.

### The Zenza Bronica

Here is a brief explanation of the mechanism of the Zenza Bronica Single Lens Reflex camera.

#### All-In-One Knob

The wind knob is used for winding the shutter and film and also for focusing. When turned normally it is used for focusing the lens. When pulled out and turned it winds the film and the shutter. The shutter speed setting dial is also contained in the knob along with the focusing distance dial.

Fig. 1

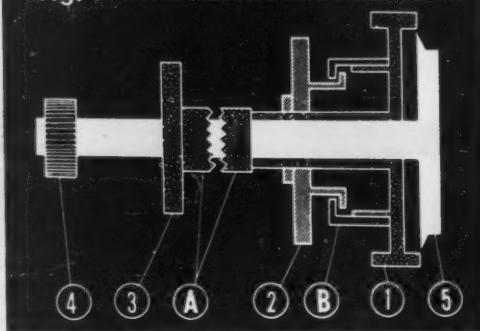


Figure 1 above shows the various parts of the knob. The knob (1) is held inward by a spring and turns a gear (3) through the engagement of a clutch (A). Gear 3 moves a rackgear connected to the lens focusing. When the knob 1 is pulled out, clutch B engages gear 2 to operate the shutter and film winding mechanism. With the knob pulled out, clutch A is dis-engaged from the focusing mechanism. The shutter speed dial (5) is directly connected to gear 4 for setting the shutter speeds. When the knob is pulled out and the film and shutter wound, a slight reverse turn will drop the knob back into focusing position.

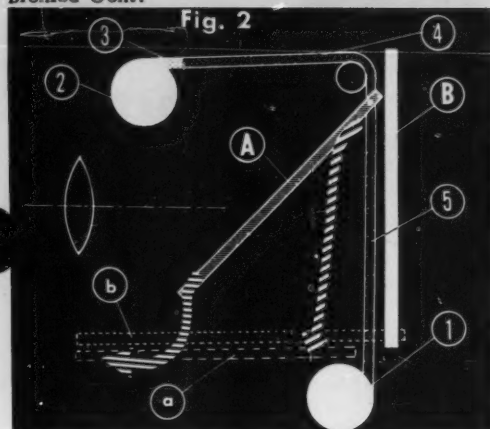
#### Mirror Mechanism

Figure 2 shows the mirror and mask movements. When the shutter release is pressed, the spring-loaded drum (1) is released and the ribbon (5) is wound on the drum pulling the mirror (A) downward to the position shown at a. To

Cont. page 9



Bronica Cont.



eliminate the reflection from the mirror a mask (B) moves down to cover the mirror as shown at *b*. At the same time light from the focusing glass is masked by a curtain (3) which is pulled from a drum (2) by tapes (4). The mirror and the two masks Cont. page 12

### Handy PLASTIC BOXES

These crystal-clear boxes, 8-1/4" x 4-1/4" x 1-1/4" are molded of clear polystyrene, a light hard plastic which retains its polish well. Very handy for storage of nuts, bolts and even fishing tackle.

**3 for \$2.00**  
**75¢ each**

A. B.

Please designate type desired.

## MASTER MECHANIC STAR SALESMAN SKILLED AIDE

Here's the triple-threat test instrument that will be equally at home in your shop, store or lab. This investment is planned to earn you profits. Use the prestige-building

### ServiShops Motion Analyzer

for fast, high-precision tests on all photo equipment. You'll find it easy to operate, easier to understand and easiest to demonstrate!

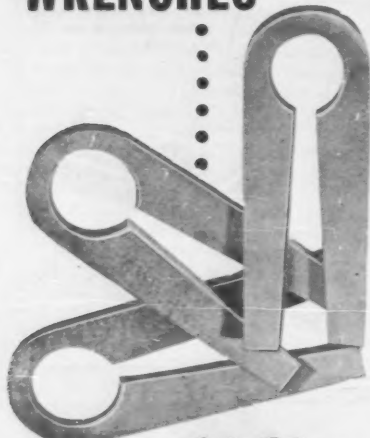


Write today for complete, free information.

## NATIONAL CAMERA REPAIR SCHOOL

Drawer CC Englewood, Colorado

*Nat Line:*  
*Flexi-Clamp*  
**WRENCHES**



**T 751-12P \$3.50 ea.**

THESE WRENCHES are very effective tools for removing Lens and Retaining Rings that do not have built in Spanner Slots. You will not mar fine finishes or damage delicate lens mounts when you have a set of these wrenches in your kit. Available for any size diameter job. SIZES IN STOCK to fit:  
EASTMAN KODAK LENS CELLS  
POLAROID LENS CELLS  
LEICA View and Rangefinder caps  
OTHER sizes available on request  
PLEASE state size or purpose required when ordering.  
Popular sizes: 7/16, 1/2, 21/32, 3/4, 1-1/8, 1-1/4, 1-1/2, 1-3/4

**A ServiShops PRODUCT**

National Camera Repair School  
Englewood, Colo., U.S.A.



**HI THERE!**

Yes siree, today is the day. My column is due and I feel like Mr. Hyde --- Gad!

Hi Mr. Robinson in Odessa, Texas. Just wanted to let you know we enjoyed your stay (40 hours of training in ServiShops Headquarters) and want you to come back again as soon as possible. Joe told us some of your jokes after you had left and I must say they were dillys. Ha.

Now then, Dear Mr. Wilson, how are you? In case our readers are wondering who you are -- a student, of course -- and from beeg ole Texas. Mr. C.L. like the rest of you, makes our difficult days difficult. Oops, I mean happy days. That's the way it was supposed to come out -- really.

We enjoy seeing your lessons come in and most of all your nice letters. Some of them are growly (that's only human, you know) and then some of them are outstanding, even around here! To sum it up, everyone just thinks you're tops. I mean how else could you be, knowing such good joes as us'ns. HA! Anyway, on with the story --- I know the rest of you students are going to think he's a wonderful person just as we do after you've read the following:

"10:00 P.M. 's th' time ---

"Dear Miss King:

(Or, just 'Delphine'?). . . .

May I wish you a 'HAPPY HALOWEEN'!

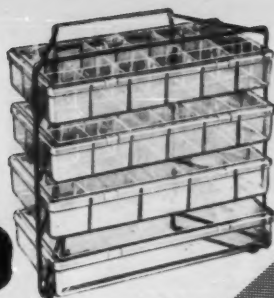
And send this 'memento' of my vacation. . . .



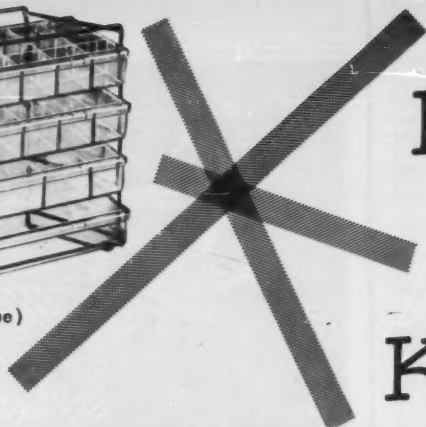
Along with THIS explanation:

This Arkansawyer's quite a guy . . .  
(Feelin', no doubt, as tired as I. . .

Cont. page 12



(a \$3.95 value)



Kits

Kits

Kits

**You've asked for them and here they are!**



**KITS NOW  
AVAILABLE:**

\* When TransRak is not ordered,  
these kits include a P 201  
Plastic tray for storing.

\*RIVET ASSORTMENT \_\_\_\_\_ \$7.50

\*WIND ASSEMBLY ASSORTMENTS

For Box Camera \_\_\_\_\_ \$6.95

For Popular Priced Folding Camera \_\_\_\_\_ \$6.95

\*SYNCH INSTALLATION KITS

External (Connectors, Insulators, etc.) \_\_\_\_\_ \$9.75

Internal (Replacement Parts,  
contact material, etc.) \_\_\_\_\_ \$15.50

\*SHUTTER BLADE ASSORTMENT \_\_\_\_\_ \$6.95

FLASHCORD ASSORTMENT (6 cords) \_\_\_\_\_ \$9.90

SPRING WIRE KIT

3' each of sizes .011, .012, .018,  
.020, .022











6" each of sizes .040 and .050 \_\_\_\_\_ \$1.00

METRIC SCREW ASSORTMENT

(400 pieces) \_\_\_\_\_ \$7.50

MIRROR ASSORTMENT (6) \_\_\_\_\_ \$5.95

**1/4 PRICE! YOUR TRANS-RAK, SHOWN ABOVE,  
COSTS YOU ONLY \$1.00 WITH ANY ServiShops  
KIT ORDER TOTALING \$20.00 OR MORE.**

SYNCHRO CONTACTS P.C. 3 mm			Price
	to be riveted into shutter	SCR 1	.75
	metric shutter thread M4 contact pin 1/2" long	SCR 2	.75
	for Campan, Pionter, Pionter and Vario shutters spring 1/2" long metric screw M 1.6	SCR 3	1.45
	for Bellows shutters etc. spring 1/2" long metric shutter thread M4x05 metric screw M 1.6	SCR 4	1.25
	for small and large Compur shutters spring 1/2" long metric shutter thread M4x05 metric screw M 1.6	SCR 5	1.35
	for Bellows-Automat etc. spring 1/2" long wire 4" long metric screw M 1.6 black leather plate	SCR 6	2.10
	for Bellows, old Bellows, Baglin etc. spring 1/2" long with 2 insulating plates wire 4" long metric screw M 1.6 black leather plate	SCR 7	2.10
REPAIR PLUGS			
	to be glued by acetone or benzol. Contact pin where plated. Directions for use added.		
	End	Plastic	
	P.C. 3 mm male	black	SCR 13 .30
		ivory	SCR 14 .30
	P.C. 3 mm female	black	SCR 15 .75
		ivory	SCR 16 .75
	double prongs (US household plug)	ivory	SCR 17 .45
REPAIR LEADS			
	P.C. 3 mm 12" long, ready for mounting		
	End	Plastic	
	P.C. 3 mm male	black	SCR 18 .35
		ivory	SCR 19 .35
	double prongs (US household plug)	ivory	SCR 20 .35

**A ServiShops PRODUCT**

National Camera Repair School  
Englewood, Colo., U.S.A.

Bronica Cont.  
move simultaneously, followed by operation of the automatic diaphragm.

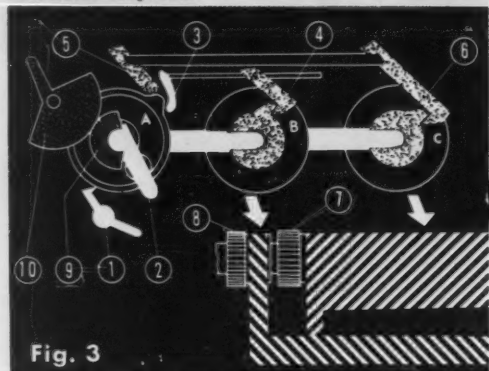


Fig. 3

#### Focal Plane Shutter Mechanism

When the lowered mirror and the ground glass are covered by their respective masks, latch 1 is pressed aside, releasing gear A. The cam on gear A moves latch 3. Latch 4 is linked to 3 and also moves. Latch 4 releases the opening curtain (8) through gear B. The arm 2, whose position on gear A is set with a planet-gear, pushes up lever 5. This in turn releases latch 6 since 5 and 6 are on a common shaft. Latch 6 releases the closing curtain (7) through gear C. The relationship between the two curtains is governed by the position of arm 2 on gear A. Arm 2 is attached to setting gear 9 so that it may be turned with gear 10. Gear 10 is controlled by the shutter dial through geared linkage.

## New Craftsmen

Sing Siong Huan of Iloilo City, Philippines, has a son, Anthony, the first boy in their family. Cute, with curly hair, "not as bald as his father", writes beaming Mr. Sing.

Clair Schmitt has a new son named David. This gives him a spare for his basketball team.

Pat and Lynn Collupy of Denver, Colorado, have a new son, Jeffrey Brian, born November 1.

Robert L. Ward of Summerland, California, has a new daughter at his house; Sarah Leone arrived October 7 and weighed 9 pounds.

The Carl Holland's of Biloxi, Mississippi, are the proud parents of twin sons born in July



## BELLOWS

Have we heard from  
you lately?

I have received your letter of congratulations upon my completion of the NCRS course. Thank you for the letter and its encouraging tone. Also, have since received a Diploma and I am proud of it, I assure you it will be framed.

I must admit I was somewhat skeptical about learning by correspondence, but I am happy to say it was most interesting and I feel that it is a very thorough course.

I feel that the entire staff of NCRS ought to be congratulated for the fine spirit of cooperation evident to me thruout the entire study course. A Gentle Reminder to get a lesson in, an encouraging word from time to time were greatly appreciated then and especially now as I look back to that time of study.

I shall be most happy to continue to receive the publication Camera Craftsman. Both myself and Mrs. King always read it from cover to cover.

Russell C. King  
Minneapolis, Minnesota

The lesson on Sound Systems has been very difficult for me. However, this is not your fault, as the information is there. How any group can put so much information in such a small space of forty-four pages is definite proof that the writer or writers really know their subject.

Already I am building a reputation of being a good camera repair technician who can be depended upon to do a job right the first time. For this I am indebted to you folks.

Arthur A. Hemler  
Glendora, California

I was pleased to receive the letter stating I have completed the course.

It's been a long struggle and without the help of the staff of NCRS I would never have made it. I will admit there were times when I was ready to give up, then I would receive a letter from the School and everything turned out OK.

To me the biggest thing I learned was confi-  
Cont. page 14

## HELP WANTED

A card to NCRS Placement Service will bring more details about these opportunities. Include code number listed for opening that interests you

9624 Manufacturer-Distributor in Chicago has openings for students or graduates.

9914 Camera shop in Kansas City, Mo. needs full time repairman. Established retailer with some equipment and willing to add more.

9815 Hollywood, California store wants advanced student or graduate to work into established shop. Must live in Hollywood area.

983 Established repair shop in expanded camera store in Nashville, Tennessee, needs a good, experienced man.

9111 Photo Supply Dealer operating in Ohio towns would like graduate to operate shop to service Company stores and others in area.

9930 Repair shop in Columbus, Ohio needs advanced student or graduate for camera repair. Full time. Salary open.

9518 Photo shop in Omaha, Nebraska needs trained sound projector and tape recorder repairman for their modern fully staffed shop. Tools furnished, salary open. Here is an opportunity to grow with an expanding shop.

9814 Camera Repairman wanted for photo shop in Pittsfield, Mass. Pay and working conditions excellent.

9918-2 Lakewood, Ohio repair shop is in dire need of a good repairman.

9918 Repair shop in Chicofee Falls, Mass wants experienced student or graduate.

9924 Rapid City, S. Dakota photo shop is looking for a reliable repairman.

Dealers --- Repairshops --- Service Departments

When you need repairmen, send details to NCRS Placement Service. Your needs will be listed here. Applications of interested repairmen will be sent for your consideration.

## Lindstrom \* PLIERS



**FLAT NOSE PLIERS**

Size 4" 4½" 5"

Bright finish Cut jaws \$1.99 \$2.09 \$2.29

Bright finish Smooth jaws 1.99 2.09 2.29



**HALF ROUND NOSE PLIERS**

Size 4" 4½" 5"

Bright finish Smooth jaws \$2.19 \$2.29



**END CUTTING NIPPERS**

Length 3½" 4" 4½" 5"

Bright finish \$2.29 \$2.39 \$2.59 \$2.69



**ROUND NOSE PLIERS**

Size 4" 4½" 5"

Bright finish Smooth jaws \$1.99 \$2.09 \$2.29



**CHAIN NOSE PLIERS**

Size 3½" 4" 4½" 5"

Bright finish Cut jaws \$1.99 \$2.09 \$2.29

Bright finish Smooth jaws 1.99 2.09 2.29 2.39



**SIDE CUTTING NIPPERS**

Size 3½" 4" 4½" 5"

Bright finish \$2.29 \$2.39 \$2.59 \$2.69

**A ServiShops PRODUCT**

Bel lows cont.

dence. Without that, all would be lost.

If I ever (I will) get West again, I'll sure stop in for a visit. If any one of the staff of NCRS comes East, they are welcome at my home.

Roy Hannan  
Aliquippa, Penn

### BARGAIN ON BENCH AND TOOLS

An NCRS student and active repairman has been forced to give up his work due to illness. His workbench and tools can be purchased quite reasonably. For more details, please write direct to Mr. L. J. Bertolotto, 406 W. Main Street, Lead, South Dakota.

### SCHOLARSHIP PROGRAM SUGGESTED

Here is a generous offer made by Mr. Fred-erick Roth of Union, New Jersey:

"Any keep tools that I return for credit (be-cause duplicates are already owned) I wish to be credited to some other student, whose aim it is to become a technician for a better position in life and who finds it tough going financially."

This could be a nucleus for a scholarship program to help others get NCRS training in Cam-era Craftsmanship. Possibly the fund could be offered to a photographic association or society to be periodically awarded in some manner to a deserving person.

Any comments or suggestions along this line from alumni, students or friends of NCRS would be greatly appreciated.

### MORE "HELP WANTED"

There are non-union openings now for five 35mm theater projectionists with LA city licenses in an LA county theater circuit. Any fellows interested should write to:

Mr. Calvin Arbuthnott  
325 West 73rd Street  
Los Angeles 3, California  
or P.O. Box 39273 (37)

... These openings are for operators in Japanese, Negro and some white houses in out-lying districts. Jobs pay from \$1.50 to \$1.75 to begin and later advance to \$2 an hour. No drive-in theaters, all are closed in and roofed.



in Camera Repair...  
 sometimes near despair,  
 I pass??' . . . or:  
 King lass'? . . . )  
 study and heat. . .  
 is retreat,  
 ing, with th' Fall . .  
 - No STUDY at all!  
 g th' view. . .  
 ns. . . 'n you ---  
 tray,  
 . . . .  
 urse is drawing near,  
 din' a little rest, too  
 ch as I do). . . .  
 would, maybe, remind  
 se is all behind. 'N  
 D THAT FINAL TEST)

That YOU, too, can then 'vacation 'n rest'  
 And, also, that 'You're being wished well'  
 By 'Big Wilson' --- Initials: C. L."

Thank you so much, Mr. Wilson, I know I'll  
 miss you terribly when you graduate. I think I'll  
 still find time, tho, to pester you. O.K.?

May I leave you people with this thot from  
 Ole Josh Billings?

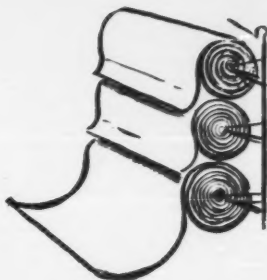
"There is onli one advantage in going tew the  
 Devil as I can see, and that is, the rode is easy,  
 and yew are shur tew git there."

Bye now and Keep up the good work  
 Delphine

#### Changes on the Home Front

Donald Blessum of Lake Villa, Illinois, has  
 congratulations coming on his recent marriage.  
 With lots of encouragement on the home front,  
 his camera repair work should go extra well.

## BELLOWS & SHUTTER MATERIAL



"Outer" 36" wide \$2.20 yard  
 "Inner" 36" wide \$2.00 yard  
 Discount: 1 to 4 yards - 20%  
 5 to 10 yards - 25%

#### FOCAL PLANE SHUTTER MATERIAL

42" wide \$6.00 yard  
 Discount: 1 yard - 20%  
 2 to 4 yards - 30%; 5 to 10 yards - 40%  
 Minimum Order: 1 yard  
 Over 10 yards, write for special discount

A ServiShops PRODUCT

National Camera Repair School  
 Englewood, Colo., U.S.A.

request for  
 information...

#### NATIONAL CAMERA REPAIR SCHOOL

Box 174  
 Englewood, Colorado

I am interested in the opportunities and advantages of a career in Camera Craftsmanship. Please furnish me with complete information about your training program.

Name \_\_\_\_\_ Age \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

If you have a friend or relative who may be interested in the money making opportunities that exist today in the camera repair field, have him or her fill out this coupon and mail it to the National Camera Repair School, Box 174, Englewood, Colorado.

751-1

# MULTISPAN WRENCH

**\$8.50**

Here is the precision spanner wrench designed especially for optical and camera work. It will serve you economically, for the tool accepts replaceable and interchangeable tips. Quickly adjustable from 0" to 4" (even more with proper tips), you lock the setting firmly with a single motion. The MultiSpan's versatility is unmatched because of the many varieties of tips you can use. You can instantly snap a tip for almost any application into one of two positions. Get a complete set of tips which you can use in pairs or in combination with each other.

Blanks with the tip unground are also available. These tips are already heat treated, and plated. You can grind the blade to the required shape for many of the hard-to-get-at retaining rings. Prices shown are per pair.

751-2 Tips, straight, flat, ground.....1.60

751-3 Tips, straight, pencil point.....1.60

751-4 1/8" offset, flat, ground.....1.80

751-5 1/4" offset, flat, ground.....1.80

751-6 3/8" offset, flat, ground.....1.80

751-2u Tips, straight, flat, unground.....1.30

751-3u Tips, straight, point, unground....1.30

751-4u Tips, 1/8" offset, flat unground....1.50

751-5u Tips, 1/4" offset, flat unground....1.50

751-6u Tips, 3/8" offset, flat unground...1.50

751-15 A Special Camera Wrench for removing narrow retaining rings from the Retina

**\$8.50**

THE CAMERA  
CRAFTSMAN

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U.S. POSTAGE  
PAID  
ENGLEWOOD, COLO.  
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Form 3547 Requested  
Return Postage Guaranteed

